UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 31, 1996

Ms. A. Bishop, President
Atomic Energy Control Board
280 Slater Street
P.O. Box 1046, Station B
Ottawa, K1P 5S9
CANADA

Dear Ms. Bishop:

I am responding to a letter from Mr. Richard Rawl, dated April 4, 1996, in which he requested that comments on the draft 1996 Edition of the International Atomic Energy Agency's (IAEA's) "Regulations for the Safe Transport of Radioactive Material," Safety Series No. 6, be forwarded to you. Many organizations in the United States have contributed to the multi-year effort to complete this edition, including our national competent authority, the U.S. Department of Transportation, as well as the Nuclear Regulatory Commission, other Federal agencies, national laboratories, and industry representatives.

We agree with Mr. Rawl's letter that Type C package standards, uranium hexafluoride (UF_6) transport provisions, and the incorporation of exemption values are the three principal issues in this edition. Type C package standards were developed to address the air transport of large quantities of radioactive material, with exception for certain low dispersible materials. Although Type C packaging standards are less rigorous than the United States packaging standards for the air transport of plutonium, the United States has made it clear that, consistent with United States law, any plutonium air transport to, or over, the United States will be subject to the more rigorous United States packaging standards. Consequently, the United States does not oppose the IAEA Type C or low dispersible provisions.

The United States has, however, repeatedly objected to the draft provisions intended to address the other two principal issues, UF_6 and exemption values. The draft UF_6 regulations would require that cylinders containing natural, depleted or less than one percent enriched UF_6 be subjected to the thermal test currently imposed on Type B package designs. The draft radionuclide specific exemption values (activity concentration limits for exempt material, and corresponding activity limits for exempt consignments) were developed to provide dose-based exemptions that harmonized with public dose limits contained in the "International Basic Safety Series for Protection Against Ionizing Radiation and for the Safety of Radiation Sources," Safety Series No. 115. The United States positions on the draft provisions were expressed through various working papers and during working group and plenary deliberations at Revision Panel III, the Standing Advisory Group on the Safe Transport of Radioactive Material (SAGSTRAM), and Revision Panel IV.

We are opposed to the draft UF_6 and exemption value provisions on the following bases that they have not been justified:

- We are unable to identify a public health and safety problem with the current provisions. In hundreds of thousands of shipments that span five decades, we are unable to identify any public health or safety impact attributable to the current UF_6 and exemption value provisions.

- Neither the draft UF_6 nor exemption value provisions provide significant improvement in safety.

- The draft provisions would impose new complexity and economic burdens in transportation. The costs of imposing these provisions, particularly for UF_6, would be substantial. If the use of overpacks is required to meet the thermal test, as many in the UF_6 industry believe, the cost could reach 120 million dollars to the United States. This includes the cost of overpacks, incremental equipment, additional manpower requirements, and additional shipping requirements (truck cargo is limited to only one overpacked cylinder per truck, versus two not overpacked).

- The draft provisions would decrease harmony between IAEA and Member State transportation regulations. Since neither the UF_6 nor the exemption value provisions are needed for safety, their adoption in the United States will depend primarily on the provisions' economic merit. It is our judgment that both provisions would fail a domestic cost/benefit screening because we are unable to identify and quantify sufficient benefit to compensate for their costs. We are concerned that, after the years of effort on this Edition, we, and perhaps other Member States, will be forced to adopt domestic UF_6 and exemption value provisions that are incompatible with those of IAEA.

The United States has cooperated, and will continue to cooperate, with the IAEA and the other Member States in issuing Safety Series No. 6. It is not our intent to obstruct the completion or issuance of Safety Series No. 6. However, our continuing concern about the magnitude of the impacts from these provisions, and our desire to avoid incompatibility with IAEA regulations, compel us to disagree with the UF_6 and radionuclide specific exemption provisions. We believe we have exhausted the review process available through the auspices of the Transportation Safety Standards Advisory Committee (TRANSSAC, formerly SAGSTRAM), and that further review through TRANSSAC will not be fruitful.

Accordingly, we recommend that the 1996 Edition be adopted without the UF_6 or radionuclide specific exemption value revisions. Should the draft provisions be retained by the Advisory Committee on Safety Standards, we intend to provide a dissenting view regarding these provisions to the Board of Governors, when Safety Series No. 6 is submitted for approval.

Sincerely,

Original signed by
James M. Taylor

James M. Taylor
Executive Director
for Operations